

REMARKS

Claims 1-10, 12-16, 26 and 27 were pending in the application.

Claims 1-10, 12-16, 26 and 27 are rejected.

Claims 1-4, 6-10, 12-16, 26 and 27 are rejected under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a).

Claims 1-10, 12-16 and 26-27 are cancelled and new claims 28-46 are presented for consideration.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1-4, 6-10, 12-16, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Smith (6,707,149). The rejections are respectfully traversed.

Responsive to the office action, applicant has cancelled the pending claims and replaced them with a corresponding set of claims, with claim 28 corresponding to claim 1 and claim 43 corresponding to claim 13. The claims depending from new claims 28 and 43 correspond generally to the claims depending from claims 1 and 13, respectively, as filed.

In claim 28, a configuration is defined that is not found or suggested in the prior art. A first bond finger has a conductive circuit pattern that connects it to one of the solder ball pads. A second bond finger has a first wire bonding unit that connects it to one of the bond pads. And a second wire bonding unit connects the first and second fingers. This provides a connection between the one bond pad and the one solder ball pad.

In contrast, applicant's prior art in Fig. 3 merely includes an extra ("redundant") bond finger 21 that could be used to connect to one of the solder balls. If it is used, a wire bonding unit (not shown in the drawings) connects the extra finger to one of the chip bond pads and a conductive pattern (also not shown) connects the extra finger to one of the solder ball pads. It is the difficulty of laying out a conductive pattern in a configuration similar to Fig. 3 that makes applicant's claimed invention so appealing.

Admittedly, the Smith reference discloses wire bonds between bond fingers. But there is absolutely no indication in Smith concerning which, if any, elements are being electrically connected by the wire bond units. Further, nothing in either reference suggests connecting a solder ball pad and a bond finger via a conductive pattern and then connecting

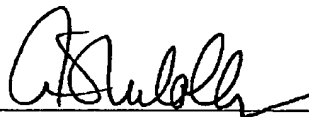
the bond finger to another bond finger via a wire bond unit. As described in the application, this permits use of the same substrate when extra bond pads are required on the semiconductor chip, even in situations when there are many circuit patterns surrounding much of a redundant solder ball pad.

Claim 43 also defines over the prior art. Nothing in either reference applied by the Examiner suggests a wire bonding unit that connects circuit patterns.

For the foregoing reasons, reconsideration and allowance of the pending claims is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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